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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,481	08/27/2003	Yoshiaki Tanaka	20402-00550-US2	4124
30678 7590 05/18/2007 CONNOLLY BOVE LODGE & HUTZ LLP P.O. BOX 2207 WILMINGTON, DE 19899-2207			EXAMINER CHIO, TAT CHI	
			ART UNIT 2621	PAPER NUMBER
			MAIL DATE 05/18/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/648,481	Applicant(s) TANAKA ET AL.	
	Examiner Tat Chi Chio	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 29-33 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 29-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/27/2003 and 8/1/2005</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 33 is objected to because of the following informalities: AOTT-AOB-ATR should read (AOTT-AOB-ATR). Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 29-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heo et al. (5,987,417).

Consider claim 29, Heo et al. teach a digital signal recording disc comprising:

- a first area (ATS D) storing an audio title set (ATS) containing at least first and second channel digital audio signals of a plurality of channels of audio data, wherein said plurality of channels are divided into first and second channel groups (Group 1, 2) (claim 1).
- the audio title set (ATS) including an audio title set information (ATSI) containing information of first and second parameters respectively relating to the first and second channel digital audio signals, the first parameter comprising at least one item selected from the group comprising;

(1) quantization bit numbers (Q1, Q2) of the first and second group channel digital audio signals (claim 2);

(2) sampling frequencies (fs1, fs2) of the first and second channel group digital audio signals (claim 2);

- the second parameter (CHANNEL ASSIGNMENT) comprising assignment of the first and second channel digital audio signals to said first and second channel groups (table 21a and 21b);
- the digital signal recording disc being void of a second area (VTS D) storing a video title set (VTS) (it is obvious that the second area (VTS D) storing a video title set (VTS) is void in a DVD-Audio disc);

Heo et al. fail to teach the first area also storing an audio manager (AMG) containing data for controlling the digital audio signals. However, Heo et al. disclose the first area also storing an audio manager (AMG) containing data for controlling the digital audio signals (table 10a and 10b) in the Background of The Invention. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include an audio manager (AMG) containing data for controlling the digital audio signals since the controlling signals provide better control of the digital audio signals.

Consider claim 30, Heo et al. teach a digital signal recording disc, wherein the quantization bit numbers of the first and second channel digital audio signals are different from each other (claim 2).

Consider claim 31, Heo et al. teach a digital signal recording disc, wherein the sampling frequencies of the first and second channel digital audio signals are different from each other (claim 2).

Consider claim 32, Heo et al. teach a method of recording data or reproducing data from the digital recording disc of claim 29 (Fig. 18).

Consider claim 33, Heo et al. teach a digital signal recording disc, wherein the audio title set (ATS) comprises an audio-only-title audio-object AOTT-AOB, and the audio title set information (ATSI) contains an audio-only-title audio-object attribute AOTT-AOB-ATR for storing the information of the first and second parameters (Fig. 33).

### ***Conclusion***

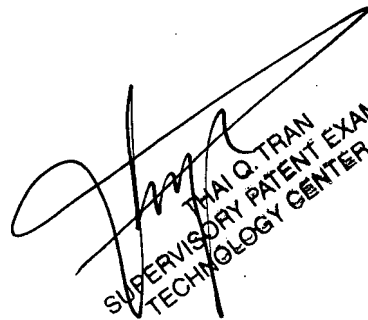
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tat Chi Chio whose telephone number is (571) 272-9563. The examiner can normally be reached on Monday - Thursday 8:30 AM-6:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on (571)-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TCC



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